



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,074	03/31/2004	Stephen R. Lawrence	24207-10081	7346

62296 7590 11/14/2007  
GOOGLE / FENWICK  
SILICON VALLEY CENTER  
801 CALIFORNIA ST.  
MOUNTAIN VIEW, CA 94041

EXAMINER
----------

TIMBLIN, ROBERT M

ART UNIT	PAPER NUMBER
----------	--------------

2167

MAIL DATE	DELIVERY MODE
-----------	---------------

11/14/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/815,074

Applicant(s)

LAWRENCE ET AL.

Examiner

Robert M. Timblin

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 9/5/2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This Office Action corresponds to application 10/815,074 and Applicant's remarks/amendments made thereto submitted on 9/5/2007.

#### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/5/2007 has been entered.

#### ***Response to Amendments***

Claims 1, 16-18, 21 and 25 have been amended and claims 27-28 have been subsequently added. Claims 1-28 have been examined and are pending prosecution.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-15, 18-20, and 22-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Barrett et al. ('Barrett' hereafter) (U.S. Patent Application 2003/0135490). Barrett teaches the claims in the following drawing references of figures 1-2 and the following cited paragraphs.

With respect to claim 1, A computer-implemented method for ranking information, comprising:

identifying an input signal indicating an interest (figure 22, drawing reference 8 and 0012; i.e. a user selects information that satisfies their needs) in a first piece of information (drawing reference 8; i.e. a first information is selected) in the a collection of information (figure 2, information A-B) associated with a plurality of search queries (figure 2, Query Q1-Q2);

determining a search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with the first piece of information (step 2, figure 1);

adjusting a query factor (figure 1, drawing reference 16, and paragraphs 0017-0023; i.e. factors calculated for the Enhanced Popularity Score (EPS)) associated with the search query (figure 2; i.e. the factors are calculated for the EPS which is given to a query; 0043) associated with the first piece of information (step 8, figure 1) responsive to the input signal;

Art Unit: 2167

determining a search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with a second piece of information (figure 1, step 12; i.e. a second information is selected) from the collection (figure 2);

determining whether the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with the first piece of information (step 2, figure 1) and the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with a second piece of information (figure 1, step 12; i.e. a second information is selected) are the same (0047; determining if two queries are related and figure 1); and

if the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with the first piece of information (step 2, figure 1) and the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with a second piece of information (figure 1, step 12; i.e. a second information is selected) are the same (0047; determining if two queries are related and figure 1),

determining a score (EPS, 0047) for the second piece of information (step 12, figure 1) based at least in part on the query factor (figure 1, drawing reference 16, and paragraphs 0017-0023; i.e. factors calculated for the Enhanced Popularity Score (EPS)) associated with the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with the first piece of information (step 2, figure 1), and

ranking the collection of information based on the score (figure 1, step 20 and figure 2).

With respect to claim 2, Barrett teaches the method of claim 1, wherein the input signal indicates a selection of the first piece of information (0004).

With respect to claim 3, Barrett teaches the method of claim 1, wherein the input signal comprises lack of selection of the first piece of information for at least a specified amount of time where the first piece of information is displayed to the user (0012, step 16).

With respect to claim 4, Barrett teaches the method of claim 1, wherein the input signal comprises user activity associated with the first piece of information (0004, user clicking).

With respect to claim 5, Barrett the method of claim 4, wherein the user activity comprises one or more of viewing duration, scrolling, mouse movement, selection of links from the piece of information, saving, printing, and bookmarking (0012, step 16).

With respect to claim 6, Barrett teaches the method of claim 4, wherein the input signal further comprises user activity associated with articles linked from the first piece of information (0012, step 12 and figure 1).

With respect to claim 7, Barrett teaches the method of claim 1, wherein the input signal comprises selecting a user interface object associated with negative interest in the first piece of information (0004, clicking a link).

With respect to claim 8, Barrett teaches the method of claim 1, wherein the input signal comprises a user rating (0005 use rate and 0037 feedback).

With respect to claim 9, Barrett teaches the method of claim 1, wherein one of the plurality of search queries comprises one of query type, query term, application, type of application, article type, and event type (0010, 0013, and 0037).

With respect to claim 10, Barrett teaches the method of claim 9, wherein the query type comprises one of current sentence, current paragraph, text near the cursor, extracted terms, and identified entries (0010).

With respect to claim 11, Barrett teaches the method of claim 1, wherein the score comprises a relevance score (0013).

With respect to claim 12, Barrett teaches the method of claim 1, wherein the score comprises a popularity score (0043, EPS).

With respect to claim 13, Barrett teaches the method of claim 1, further comprising increasing a refresh rate of a content display (0016-0019 and 0053).

With respect to claim 14, Barrett teaches the method of claim 1, wherein the input signal is a first input signal and the interest is a first interest, further comprising:

receiving a second input signal indicating a second interest in a third piece of information (0012, figure 1, selecting more information); and

varying a refresh rate of a content display based at least in part on the duration between receiving the first input signal and the second input signal (0053, clicking behavior).

With respect to claim 15, Barrett teaches the method of claim 1, wherein the input signal comprises multiple input signals (0041, tracking clicks).

With respect to claim 18, (Currently Amended) A computer program product having a computer-readable medium having computer program instructions tangibly embodied thereon for ranking information associated, the computer program instructions comprising instructions for:

identifying an input signal indicating an interest (figure 22, drawing reference 8 and 0012; i.e. a user selects information that satisfies their needs) in a first piece of information (drawing reference 8; i.e. a first information is selected) in the a collection of



information (figure 2, information A-B) associated with a plurality of search queries (figure 2, Query Q1-Q2);

determining a search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with the first piece of information (step 2, figure 1);

adjusting a query factor (figure 1, drawing reference 16, and paragraphs 0017-0023; i.e. factors calculated for the Enhanced Popularity Score (EPS)) associated with the search query (figure 2; i.e. the factors are calculated for the EPS which is given to a query; 0043) associated with the first piece of information (step 8, figure 1) responsive to the input signal;

determining a search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with a second piece of information (figure 1, step 12; i.e. a second information is selected) from the collection (figure 2);

determining whether the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with the first piece of information (step 2, figure 1) and the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with a second piece of information (figure 1, step 12; i.e. a second information is selected) are the same (0047; determining if two queries are related and figure 1); and

if the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with the first piece of information (step 2, figure 1) and the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with a second piece of information (figure 1, step 12; i.e. a second information is selected) are the same (0047; determining if two queries are related and figure 1),

determining a score (EPS, 0047) for the second piece of information (step 12, figure 1) based at least in part on the query factor (figure 1, drawing reference 16, and paragraphs 0017-0023; i.e. factors calculated for the Enhanced Popularity Score (EPS)) associated with the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with the first piece of information (step 2, figure 1), and

ranking the collection of information based on the score (figure 1, step 20 and figure 2).

With respect to claim 19, Barrett teaches the computer program product of claim 18, the computer program instructions further comprising instructions for increasing a refresh rate of a content display (0016-0019 and 0053).

With respect to claim 20, Barrett teaches the computer program product of claim 18, the computer program wherein the input signal is a first input signal and the interest is a first interest the computer program instructions further comprising instructions for:

receiving a second input signal indicating a second interest in a third piece of information (0012; figure 1, selecting more information); and

varying a refresh rate of a context display based at least in part on the duration between receiving the first input signal and the second input signal (0053, clicking behavior).

With respect to claim 22, Barrett teaches the method of claim 1, wherein the first and second pieces of information comprise an article identifier (0011, i.e. a link).

With respect to claim 23, the method of claim 1, further comprising:  
generating the plurality of search queries (0037, query family); and  
adding information from results of the plurality of search queries into the collection (figure 2).

With respect to claim 24, Barrett teaches the method of claim 1, further comprising displaying the ranked collection of information in a ranked order (0043).

With respect to claim 25, A computer program product having a computer-readable medium having computer program instructions tangibly embodied thereon, the computer program instructions comprising instructions for:

receiving a collection of information (figure 2) associated with results for a plurality of search queries (figure 2, queries Q1-Q4);

identifying an input signal indicating an interest (figure 22, drawing reference 8 and 0012; i.e. a user selects information that satisfies their needs) in a first piece of information (drawing reference 8; i.e. a first information is selected) in the a collection of information (figure 2, information A-B) associated with a plurality of search queries (figure 2, Query Q1-Q2);

Art Unit: 2167

determining a search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with the first piece of information (step 2, figure 1);

adjusting a query factor (figure 1, drawing reference 16, and paragraphs 0017-0023; i.e. factors calculated for the Enhanced Popularity Score (EPS)) associated with the search query (figure 2; i.e. the factors are calculated for the EPS which is given to a query; 0043) associated with the first piece of information (step 8, figure 1) responsive to the input signal;

determining a search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with a second piece of information (figure 1, step 12; i.e. a second information is selected) from the collection (figure 2);

determining whether the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with the first piece of information (step 2, figure 1) and the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with a second piece of information (figure 1, step 12; i.e. a second information is selected) are the same (0047; determining if two queries are related and figure 1); and

if the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with the first piece of information (step 2, figure 1) and the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with a second piece of information (figure 1, step 12; i.e. a second information is selected) are the same (0047; determining if two queries are related and figure 1),

determining a score (EPS, 0047) for the second piece of information (step 12, figure 1) based at least in part on the query factor (figure 1, drawing reference 16, and

Art Unit: 2167

paragraphs 0017-0023; i.e. factors calculated for the Enhanced Popularity Score (EPS)) associated with the search query (figure 1, drawing reference 2 and figure 2; e.g. Q1) associated with the first piece of information (step 2, figure 1), and

ranking the collection of information based on the score (figure 1, step 20 and figure 2).

With respect to claim 26, Barrett teaches the computer program product of claim 25, the computer program instructions further comprising instructions for:

receiving a user input (0047); and

generating the plurality of search queries based on the user input (0043 and 0047).

With respect to claim 27, the method of claim 1, wherein the query factor associated with the search query (figure 1, drawing reference 16, and paragraphs 0017-0023; i.e. factors calculated for the Enhanced Popularity Score (EPS)) is a weighting factor (0034) for generating a score (EPS) for information associated with the search query (0043; i.e. the EPS is associated with a given piece of information and a given query).

With respect to claim 28, the method of claim 1, wherein ranking the collection of information based on the score further comprises:

ranking at least some of the collection of information based on the score (drawing references 8- 22, figure 1), the at least some of the collection of information associated with at least two search queries (0046; e.g. Q1 and Q4).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16, 17, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barrett as applied to claims 1-15, 18-20, and 22-28 above in view of Corston-Oliver et al. ("Corston-Oliver" hereafter) U.S. Patent 6,295,529 B1).

With respect to claim 16 and similar claim 21, Barrett teaches  
generating the plurality of search queries based on a plurality of data streams;  
executing the plurality of search queries (0003, line 2) for search results (figure 1, step 6); and  
combining the search results to generate the collection of information (figure 1, step 18).

Barrett, does not explicitly teach generating the plurality of search queries based on a plurality of data streams;

Corston-Oliver, however, teaches generating the plurality of search queries based on a plurality of data streams (col. 1, lines 50-55, col. 4 lines 25-34) for an implicit data request.

In the same field of endeavor, (i.e. information retrieval), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Corston-Oliver would have provided Barrett's system with expanded query defining capabilities for the benefit of not limiting a user to use one type of query. Corston-Oliver further would have given Barrett more efficient searching techniques for searching against a large index (i.e. Corston-Oliver at col. 2 line 50-54).

With respect to claim 17, Corston-Oliver teaches the method of claim 16, wherein the plurality of data streams comprise a data stream describing current contextual state of a user (col. 4 lines 25-34; i.e. a "FIND SAME" request).

### ***Response to Arguments***

Applicant's arguments filed in the remarks of 9/5/2007 have been fully considered but they are not persuasive.

The Applicant argues on page 11 of the remarks that Barrett does not disclose adjusting a query factor associated with a search query. The Examiner respectfully submits because Barrett teaches a query factor at least in paragraphs 0017-0032. For

Art Unit: 2167

example, Barrett teaches a performance factor that is calculated (0023). This factor is used in the creation of an EPS (i.e. the EPS is based on the factor) that is associated with a given query (see figure 2 and 0043 wherein an EPS is created for a given piece of information and a given query). Barrett further teaches adjusting these factors (i.e. 0030 and drawing reference 16) based upon an input signal [that indicates interest]. For example, a hit or click (0019) suggests interest to a given article (e.g. a user selecting, or clicking information indicates their interest in that information).

The Applicant also argues that Barrett does not disclose ranking information associated with multiple queries based on a score for a piece of information based on a query factor.

The Examiner Respectfully disagrees because Barrett teaches ranking results based upon an EPS (that is based at least in part on a weighing factor) as seen in figure 1, steps 10-20 (see also paragraph 0012). Furthermore, figure 2 illustrates that various pieces of information are given a ranking (i.e. the EPS). For Example Information A is given an EPS ranking from several queries (i.e. Q1-Q4).

#### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Timblin whose telephone number is 571-272-5627. The examiner can normally be reached on M-F 8:00-4:30.



Art Unit: 2167


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert M. Timblin



Patent Examiner AU 2167



Primary Examiner  
Art Unit 2167